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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Siemens Corporation
Intellectual Property Department
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EXAMINER	
BAREFORD, KATHERINE A	
ART UNIT	**PAPER NUMBER**
1762	

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/733,740	PHILIP ET AL.	
	Examiner	Art Unit	
	Katherine A. Bareford	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 6, 2005 has been entered.

The amendment filed on September 6, 2005 with the RCE submission has been received and entered. As a result, claims 1-24 are now pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 24 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 24, line 1, requires the coating to be "nonporous", however, the only description of porosity, at page 5 of the specification as originally filed, provides that the coating is porous, and applicant has pointed to no area of the disclosure where there is support for this terminology. Therefore, the amendment contains new matter.

Claims

4. The Examiner understands the term "low velocity oxygen fuel process" to mean a combustion powder thermal spray process or powder flame spray process, as described in the cited "Combustion Powder Thermal Spray Process (Flame Spray Process)" document.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under

37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. The rejection of claims 1 and 6-7 under 35 U.S.C. 103(a) as being unpatentable over Longo et al (US 3607343) is withdrawn due to applicant's amendments to the claims.

8. Claims 1, 6-7 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Longo et al (US 4450184) (hereinafter Longo '184).

Longo '184 teaches a method of applying a zirconia (zirconium oxide) based thermal barrier coating. Column 1, lines 40-50, column 2, lines 25-50 and column 3, lines 5-20. The applied coating can be porous. Column 1, lines 40-50, column 4, lines 55-60, and column 5, lines 5-10. The method includes selecting a composite powder comprising a first constituent that can comprise stabilized zirconia particles. Column 2, lines 25-50, column 3, lines 5-20 and column 4, lines 60-68 (stabilized zirconia can be used). The powder also can have a second constituent that can comprise a second ceramic material, such as titanium oxide or manganese oxide. Column 3, lines 5-20 and column 4, lines 60-68 (note that combinations of the listed materials can be used). The second ceramic material can have a melting temperature sufficiently low so that the

second constituent particles can at least partially melt when applied. Column 3, lines 5-20 and column 4, lines 60-68 (given the melting temperatures of manganese oxide (1705 degrees C) and titanium oxide (1640 degrees C) these particles would melt under conventional flame spraying conditions required to at least heat soften the zirconia, which is taught at column 1, lines 10-15). The particles can be applied by a conventional powder-type flame spray equipment (a low velocity oxygen fuel process/LVOF). Column 2, lines 45-50 and column 1, lines 5-40. The spray powder can also be a mixture of particles used in thermal spraying. Column 5, lines 15-25.

Claims 6-7: the powder ~~use~~ can be 50 mol percent zirconium oxide and 50 mol percent manganese oxide, and thus can be greater than 20 volume percent magnesium oxide. Column 3, lines 15-20. Other materials can also be included. Column 4, lines 60-65.

Claim 23: the void percentage can be 15-50 percent. Column 5, lines 5-10. Longo '184 further teaches that desirable abradable thermal barrier coatings have 20-35% porosity. Column 1, lines 40-50.

Longo '184 teaches all the features of these claims except that the LVOF process melts the titanium/manganese oxide particles, and the precise amount of the second material (claim 7) and the precise void percentage (claim 23).

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Longo '184 to at least partially melt the titanium/manganese oxide particles when spraying with powder flame spraying in order to provide a desirably dense and bonded coating, because Longo '184 teaches that

conventional flame spray processes at least heat softens the coating material when spraying, and given the melting temperatures of manganese oxide (1705 degrees C) and titanium oxide (1640 degrees C) these particles would melt under conventional flame spraying conditions required to at least heat soften the zirconia. Furthermore, it would have been obvious to perform routine experimentation to optimize the amount of the second constituent when performing the process of Longo '184, given the variety of materials that can be used as the second constituent. Furthermore, it would have been obvious to perform routine experimentation to optimize the void percentage from within the range taught by Longo '184 given the teaching of Longo '184 as to what a desired range of porosity for abradable thermal barrier coatings is.

9. Claims 2-3 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Longo '184 as applied to claims 1, 6-7 and 23 above, and further in view of Japan 2002-275615 (hereinafter '615).

Longo '184 teaches all the features of these claims except (1) the calcium or strontium titanate (claims 2-3) and (2) the coefficient of thermal expansions (claims 8-10).

However, '615 teaches that a desirable material to be applied by thermal spraying to a substrate to form a thermal barrier coating is calcium titanate ($CaTiO_3$), which can be applied with yttria stabilized zirconia. See the abstract.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Longo '184 to use calcium titanate particles with the stabilized zirconia – titanium/manganese oxide particles as suggested by '615, in order to provide a desirable barrier layer, because Longo '184 teaches to provide a thermal barrier layer using stabilized zirconia and particles that can be titanium oxide and that multiple materials can be present, and '615 teaches the desirability of using stabilized zirconia and to add a form of titanium oxide, calcium titanate, to form thermal barrier coatings. Given the temperature of spraying, the titanate would also partially melt. Furthermore, it would further have been obvious to modify Longo '184 in view of '615 to use strontium titanate with an expectation of providing a desirable thermal barrier coating, because Longo '184 and '615 indicate the desirability of using stabilized zirconia and titanium oxide materials when forming thermal barrier coatings, and it is the Examiner's position that strontium titanate is a well known titanium oxide material. As a result of using the stabilized zirconia and specific titanium oxide materials, the claimed ranges of the coefficients of thermal expansion would be inherently provided as in claims 8-10.

10. Claims 4 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Longo '184 as applied to claims 1, 6-7 and 23 above, and further in view of Spitsberg et al (US 2003/0027012).

Longo '184 teaches all the features of these claims except (1) the sodium-zirconium-phosphate-silicate (claim 4) and (2) the thermal conductivity (claims 11-12).

However, Spitsberg teaches that a desirable material to be applied by thermal spraying to a substrate to form a thermal barrier coating is zirconium phosphate materials (NZP-family materials), including sodium zirconate phosphate, which are applied with yttria stabilized zirconia (YSZ). Paragraphs [0022] and [0025].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Longo '184 to use NZP material particles with the stabilized zirconia – titanium/manganese oxide particles as suggested by Spitsberg, in order to provide a desirable barrier layer, because Longo '184 teaches to provide a thermal barrier layer using stabilized zirconia and other ceramic particles and that multiple materials can be present, and Spitsberg teaches the desirability of using stabilized zirconia and a form of NZP materials to form thermal barrier coatings. Given the temperature of spraying, the NZP materials would also at least partially melt. It would further have been obvious to modify Longo '184 in view of Spitsberg to use sodium-zirconium-phosphate-silicate with an expectation of providing a desirable thermal barrier coating, because Longo '184 and Spitsberg indicate the desirability of using stabilized zirconia and NZP materials, including those with sodium zirconate phosphate when forming thermal barrier coatings, and it is the Examiner's position that sodium-zirconium-phosphate-silicatis a well known NZP material. As a result of using

the stabilized zirconia and NZP materials, the claimed ranges of the coefficients of thermal conductivity would be inherently provided as in claims 11-12.

11. Claims 5, 13 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Longo '184 as applied to claims 1, 6-7 and 23 above, and further in view of Nagaraj et al (US 2005/0191516) (hereinafter Nagaraj '516).

Longo '184 teaches all the features of these claims except repair of the component while in the machine.

However, Nagaraj '516 teaches that it is well known to need to repair a zirconia based thermal barrier coating. Paragraphs [0025] and [0032]. Access to a damaged region of a coating on a component in a machine is provided. Paragraphs [0032] (the part can be in an assembled state) and [0037]. The damaged region is cleaned. Paragraph [0037] (note the treatment with water, etc.) Then, a thermal spraying process, plasma spraying, is used to apply repair material to the damaged region without removing the component from the machine. Paragraphs [0032], [0039], [0040].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Longo '184 to use the process for on machine repair as suggested by Nagaraj '516, in order to provide a desirable repaired barrier layer, because Longo '184 teaches to provide a thermal barrier layer using stabilized zirconia and other ceramic particles and that multiple materials can be present, and Nagaraj '516 teaches the thermal spraying to provide repaired thermal barrier coatings without

disassembling. It would further have been obvious to use flame spraying as well as plasma spraying to provide the thermal barrier coating, because while Nagaraj '516 teaches plasma spraying, Longo '184 teaches that the specific barrier coating of Longo '184 can be provided by either flame or plasma spraying with desirable coating results.

12. Claims 5, 13 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Longo et al (US 3607343) (hereinafter Longo '343) in view of Nagaraj et al (US 2005/0191516) (hereinafter Nagaraj '516).

Longo '343 teaches a method of applying a zirconia (zirconium oxide) based thermal barrier coating. Column 3, line 60 through column 4, line 15. The method includes selecting a composite powder comprising a first constituent that can comprise stabilized zirconia particles. Column 2, lines 40-52 (see lines 49 and 51—stabilized or unstabilized zirconia can be used). The powder also has a second constituent that can comprise a second ceramic material, such as titanium oxide or manganese oxide. Column 2, lines 5-15, 40-50 and 65-75. The second ceramic material has a melting temperature sufficiently low so that the second constituent particles can at least partially melt when applied. Column 1, lines 10-15, column 2, lines 40-50 and column 3, lines 50-55 (given the melting temperatures of manganese oxide (1705 degrees C) and titanium oxide (1640 degrees C) these particles would melt under conventional flame spraying conditions required to at least heat soften the zirconia). The particles can be applied by a conventional powder-type flame spray equipment (a low velocity oxygen

fuel process/LVOF). Column 3, lines 50-55. The spray powder can also be a mixture of particles used in thermal spraying. Column 1, lines 70-75.

Claim 24: The coating can be nonporous. Column 3, lines 25-35.

Longo '343 teaches all the features of these claims except that the LVOF process melts the titanium/manganese oxide particles and repair of the component while in the machine.

However, Nagaraj '516 teaches that it is well known to need to repair a zirconia based thermal barrier coating. Paragraphs [0025] and [0032]. Access to a damaged region of a coating on a component in a machine is provided. Paragraphs [0032] (the part can be in an assembled state) and [0037]. The damaged region is cleaned. Paragraph [0037] (note the treatment with water, etc.) Then, a thermal spraying process, plasma spraying, is used to apply repair material to the damaged region without removing the component from the machine. Paragraphs [0032], [0039], [0040].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Longo '343 to at least partially melt the titanium/manganese oxide particles when spraying with powder flame spraying in order to provide a desirably dense and bonded coating, because Longo '343 teaches that conventional flame spray processes at least heat softens the coating material when spraying, and given the melting temperatures of manganese oxide (1705 degrees C) and titanium oxide (1640 degrees C) these particles would melt under conventional flame spraying conditions required to at least heat soften the zirconia. It would further have

been obvious to one of ordinary skill in the art at the time the invention was made to modify Longo '343 to use the process for on machine repair as suggested by Nagaraj '516, in order to provide a desirable repaired barrier layer, because Longo '343 teaches to provide a thermal barrier layer using stabilized zirconia and other ceramic particles and that multiple materials can be present, and Nagaraj '516 teaches the thermal spraying to provide repaired thermal barrier coatings without disassembling. It would further have been obvious to use flame spraying as well as plasma spraying to provide the thermal barrier coating, because while Nagaraj '516 teaches plasma spraying, Longo '343 teaches that the specific barrier coating of Longo '343 can be provided by either flame or plasma spraying with desirable coating results.

13. Claims 14-15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Longo '184 in view of Nagaraj '516 or Longo '343 in view of Nagaraj '516 as applied to claims 5, 13 and 22 or 5, 13 and 24, respectively, above, and further in view of Japan 2002-275615 (hereinafter '615).

Longo '184/'343 in view of Nagaraj '516 teaches all the features of these claims except (1) the calcium or strontium titanate (claims 14-15) and (2) the coefficient of thermal expansions (claims 17-19).

However, '615 teaches that a desirable material to be applied by thermal spraying to a substrate to form a thermal barrier coating is calcium titanate ($CaTiO_3$), which can be applied with yttria stabilized zirconia. See the abstract.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Longo '184/'343 in view of Nagaraj '516 to use calcium titanate particles with the stabilized zirconia – titanium/manganese oxide particles as suggested by '615, in order to provide a desirable barrier layer, because Longo '184/'343 in view of Nagaraj '516 teaches to provide a thermal barrier layer using stabilized zirconia and particles that can be titanium oxide and that multiple materials can be present, and '615 teaches the desirability of using stabilized zirconia and to add a form of titanium oxide, calcium titanate, to form thermal barrier coatings. Given the temperature of spraying, the titanate would also partially melt. Furthermore, it would further have been obvious to modify Longo '184/'343 in view of Nagaraj '516 in view of '615 to use strontium titanate with an expectation of providing a desirable thermal barrier coating, because Longo '184/'343 in view of Nagaraj '516 and '615 indicate the desirability of using stabilized zirconia and titanium oxide materials when forming thermal barrier coatings, and it is the Examiner's position that strontium titanate is a well known titanium oxide material. As a result of using the stabilized zirconia and specific titanium oxide materials, the claimed ranges of the coefficients of thermal expansion would be inherently provided as in claims 17-19.

14. Claims 16 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Longo '184 in view of Nagaraj '516 or Longo '343 in view of Nagaraj '516 as

applied to claims 5, 13 and 22 or 5, 13 and 24, respectively, above, and further in view of Spitsberg et al (US 2003/0027012).

Longo '184/'343 in view of Nagaraj '516 teaches all the features of these claims except (1) the sodium-zirconium-phosphate-silicate (claim 16) and (2) the thermal conductivity (claims 20-21).

However, Spitsberg teaches that a desirable material to be applied by thermal spraying to a substrate to form a thermal barrier coating is zirconium phosphate materials (NZP-family materials), including sodium zirconate phosphate, which are applied with yttria stabilized zirconia (YSZ). Paragraphs [0022] and [0025].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Longo '184/'343 in view of Nagaraj '516 to use NZP material particles with the stabilized zirconia–titanium/manganese oxide particles as suggested by Spitsberg, in order to provide a desirable barrier layer, because Longo '184/'343 in view of Nagaraj '516 teaches to provide a thermal barrier layer using stabilized zirconia and other ceramic particles and that multiple materials can be present, and Spitsberg teaches the desirability of using stabilized zirconia and a form of NZP materials to form thermal barrier coatings. Given the temperature of spraying, the NZP materials would also at least partially melt. It would further have been obvious to modify Longo '184/'343 in view of Nagaraj '516 in view of Spitsberg to use sodium-zirconium-phosphate-silicate with an expectation of providing a desirable thermal barrier coating, because Longo '184/'343 in view of Nagaraj '516 and Spitsberg indicate

the desirability of using stabilized zirconia and NZP materials, including those with sodium zirconate phosphate when forming thermal barrier coatings, and it is the Examiner's position that sodium-zirconium-phosphate-silicatis a well known NZP material. As a result of using the stabilized zirconia and NZP materials, the claimed ranges of the coefficients of thermal conductivity would be inherently provided as in claims 20-21.

Allowable Subject Matter

15. The indicated allowability of claim 5 and 13-21 is withdrawn in view of the newly discovered reference(s) to Nagaraj et al (US 2005/0191516), as discussed in rejection above.

Note that the 37 CFR 1.131 declaration filed September 6, 2005 is not sufficient to overcome the Nagaraj '516 reference, because, as discussed in paragraph 17 below, under MPEP 715.04, all of the inventors of the subject matter claimed need to make the declarations. Here only one inventor signed, with no indication that all named inventors did not invent the subject matter of the claims under rejection.

As well, the provided declaration and exhibit does not provide for all the features of the invention as claimed, including that the coating is porous (claim 1), the specific use of a low velocity oxygen fuel process (only general flame spraying is described) (claims 1, 5, 13), the sodium-zirconium-phosphate-silicate (claims 4, 16), the volume of the constituents of the powder (claims 6, 7), the thermal expansion features

(claims 8-10, 17-19), the thermal conductivity features (claims 11-12, 20-21), the cleaning (claim 13), the void percentage (claim 23), the nonporous coating (claim 24).

Response to Arguments

16. Applicant's arguments with respect to claims 1-4, 6-12 and 23-24 have been considered but are moot in view of the new ground(s) of rejection.

As to the use of a porous stabilized zirconia material as is now required, the Examiner has cited Longo et al (US 4450184) as discussed in the rejection above.

As to the 37 CFR 1.131 declaration as to Japan 2002-275615, see the discussion in paragraph 17 below.

Response to Amendment

17. The declaration filed on September 6, 2005 under 37 CFR 1.131 has been considered but is ineffective to overcome the Japan 2002-275615 reference.

The Japan 2002-275615 reference is a statutory bar under 35 U.S.C. 102(b) and thus cannot be overcome by an affidavit or declaration under 37 CFR 1.131.

Applicant's filing date is Dec. 11, 2003, with no claim of earlier priority. Japan 2002-275615 published September 25, 2002, more than one year prior to the Dec. 11, 2003 filing date of applicant. Therefore, Japan 2002-275615 was applied as a 35 USC 103 reference via 35 USC 102(b) and is a statutory bar. See MPEP 715 II (Situations where 37 CFR 1.131 affidavits or declarations are inappropriate), part (A).

Also, the Examiner notes that under MPEP 715.04, all of the inventors of the subject matter claimed need to make the declarations. Here only one inventor signed, with no indication that all named inventors did not invent the subject matter of the claims under rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine A. Bareford whose telephone number is (571) 272-1413. The examiner can normally be reached on M-F(6:00-3:30) with the First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and for After Final communications.

Other inquiries can be directed to the Tech Center 1700 telephone number at (571) 272-1700.

Furthermore, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KATHERINE BAREFORD
PRIMARY EXAMINER